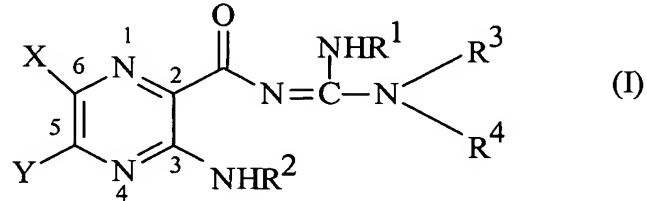


IN THE CLAIMS

Please amend the claims as follows:

1. (Amended) A compound represented by formula (I):



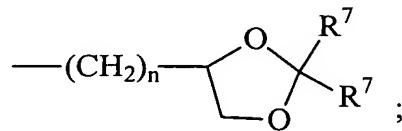
wherein

X is hydrogen, halogen, trifluoromethyl, lower alkyl, unsubstituted or substituted phenyl, lower alkyl-thio, phenyl-lower alkyl-thio, lower alkyl-sulfonyl, or phenyl-lower alkyl-sulfonyl;

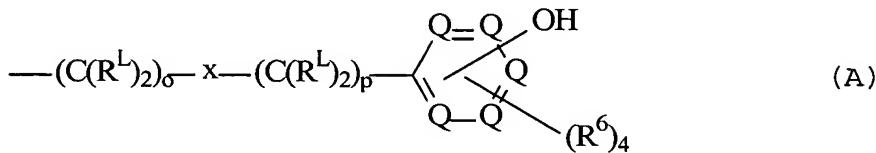
Y is hydrogen, hydroxyl, mercapto, lower alkoxy, lower alkyl-thio, halogen, lower alkyl, unsubstituted or substituted mononuclear aryl, or -N(R²);

R¹ is hydrogen or lower alkyl;

each R² is, independently, -R⁷, -(CH₂)_m-OR⁸, -(CH₂)_m-NR⁷R¹⁰, -(CH₂)_n(CHOR⁸)(CHOR⁸)_n-CH₂OR⁸, -(CH₂CH₂O)_m-R⁸, -(CH₂CH₂O)_m-CH₂CH₂NR⁷R¹⁰, -(CH₂)_n-C(=O)NR⁷R¹⁰, -(CH₂)_n-Z_g-R⁷, -(CH₂)_m-NR¹⁰-CH₂(CHOR⁸)(CHOR⁸)_n-CH₂OR⁸, -(CH₂)_n-CO₂R⁷, or

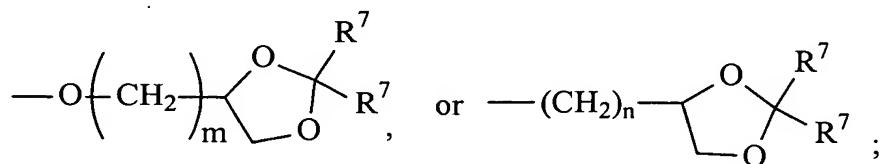


a R^3 and R^4 are each, independently, hydrogen, a group represented by formula (A), lower alkyl, hydroxy lower alkyl, phenyl, phenyl-lower alkyl, (halophenyl)-lower alkyl, lower-(alkylphenylalkyl), lower alkoxyphenyl)-lower alkyl, naphthyl-lower alkyl, or pyridyl-lower alkyl, with the proviso that at least one of R^3 and R^4 is a group represented by formula (A):



wherein

each R^L is, independently, $-R^7$, $-(CH_2)_n-OR^8$, $-O-(CH_2)_m-OR^8$, $-(CH_2)_n-NR^7R^{10}$, $-O-(CH_2)_m-NR^7R^{10}$, $-(CH_2)_n(CHOR^8)(CHOR^8)_n-CH_2OR^8$, $-O-(CH_2)_m(CHOR^8)(CHOR^8)_n-CH_2OR^8$, $-(CH_2CH_2O)_m-R^8$, $-(CH_2CH_2O)_m-CH_2CH_2NR^7R^{10}$, $-O-(CH_2CH_2O)_m-CH_2CH_2NR^7R^{10}$, $-(CH_2)_n-C(=O)NR^7R^{10}$, $-O-(CH_2)_m-C(=O)NR^7R^{10}$, $-(CH_2)_n-(Z)_g-R^7$, $-O-(CH_2)_m-(Z)_g-R^7$, $-(CH_2)_n-NR^{10}-CH_2(CHOR^8)(CHOR^8)_n-CH_2OR^8$, $-O-(CH_2)_m-NR^{10}-CH_2(CHOR^8)(CHOR^8)_n-CH_2OR^8$, $-(CH_2)_n-CO_2R^7$, $-O-(CH_2)_m-CO_2R^7$, $-OSO_3H$, $-O$ -glucuronide, $-O$ -glucose, or



each x is, independently, O, NR⁷, C=O, CHO, C=N-R⁶, or represents

a single bond;

each o is, independently, an integer from 0 to 10;

each p is, independently, an integer from 0 to 10;

with the proviso that (a) the sum of o and p in each contiguous chain is

from 1 to 10 when x is O, NR⁷, C=O, or C=N-R⁶ or (b) that the sum of o and p

in each contiguous chain is from 4 to 10 when x represents a single bond;

each R⁶ is, independently, -R⁷, -OH, -OR¹¹, -N(R⁷)₂, -(CH₂)_m-OR⁸,

-O-(CH₂)_m-OR⁸, -(CH₂)_n-NR⁷R¹⁰, -O-(CH₂)_m-NR⁷R¹⁰,

-(CH₂)_n(CHOR⁸)(CHOR⁸)_n-CH₂OR⁸, -O-(CH₂)_m(CHOR⁸)(CHOR⁸)_n-CH₂OR⁸,

-(CH₂CH₂O)_m-R⁸, -O-(CH₂CH₂O)_m-R⁸, -(CH₂CH₂O)_m-CH₂CH₂NR⁷R¹⁰,

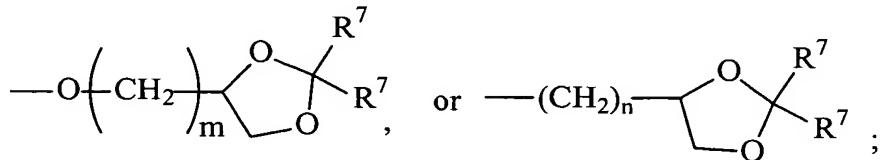
-O-(CH₂CH₂O)_m-CH₂CH₂NR⁷R¹⁰, -(CH₂)_n-C(=O)NR⁷R¹⁰,

-O-(CH₂)_m-C(=O)NR⁷R¹⁰, -(CH₂)_n-(Z)_g-R⁷, -O-(CH₂)_m-(Z)_g-R⁷,

-(CH₂)_n-NR¹⁰-CH₂(CHOR⁸)(CHOR⁸)_n-CH₂OR⁸,

-O-(CH₂)_m-NR¹⁰-CH₂(CHOR⁸)(CHOR⁸)_n-CH₂OR⁸,

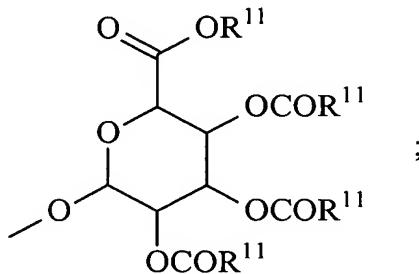
-(CH₂)_n-CO₂R⁷, -O-(CH₂)_m-CO₂R⁷, -OSO₃H, -O-glucuronide, -O-glucose,



wherein when two R⁶ are -OR¹¹ and are located adjacent to each other on a phenyl ring, the alkyl moieties of the two R⁶ may be bonded together to form a methylenedioxy group;

each R⁷ is, independently, hydrogen or lower alkyl;

Q1
each R⁸ is, independently, hydrogen, lower alkyl, -C(=O)-R¹¹, glucuronide, 2-tetrahydropyranyl, or



each R⁹ is, independently, -CO₂R⁷, -CON(R⁷)₂, -SO₂CH₃, or -C(=O)R⁷;

each R¹⁰ is, independently, -H, -SO₂CH₃, -CO₂R⁷, -C(=O)NR⁷R⁹,
-C(=O)R⁷, or -CH₂-(CHOH)_n-CH₂OH;

each Z is, independently, CHOH, C(=O), CHNR⁷R¹⁰, C=NR¹⁰, or NR¹⁰;

each R¹¹ is, independently, lower alkyl;

each g is, independently, an integer from 1 to 6;

each m is, independently, an integer from 1 to 7;

each n is, independently, an integer from 0 to 7;

each Q is, independently, C-R⁶ C-R⁵, C-R⁶, or a nitrogen atom, wherein at most three Q in a ring are nitrogen atoms;

or a pharmaceutically acceptable salt thereof, and

inclusive of all enantiomers, diastereomers, and racemic mixtures thereof.

2. (Previously Presented) The compound of Claim 1, wherein Y is -NH₂.

Q'

3. (Previously Presented) The compound of Claim 2, wherein R² is hydrogen.

4. (Previously Presented) The compound of Claim 3, wherein R¹ is hydrogen.

5. (Previously Presented) The compound of Claim 4, wherein X is chlorine.

6. (Previously Presented) The compound of Claim 5, wherein R³ is hydrogen.

7. (Previously Presented) The compound of Claim 6, wherein each R^L is hydrogen.

8. (Previously Presented) The compound of Claim 7, wherein o is 4.

9. (Previously Presented) The compound of Claim 8, wherein p is 0.

10. (Previously Presented) The compound of Claim 9, wherein x represents a single bond.

11. (Previously Presented) The compound of Claim 10, wherein each R⁶ is hydrogen.

12. Canceled.

Q 1

13. Canceled.

14. (Amended) The compound of Claim 1, wherein

X is halogen;

Y is $-N(R^7)_2$;

R^1 is hydrogen or C_1-C_3 alkyl; and

R^2 is $-R^7$, $-(CH_2)_m-OR^7$, or $-(CH_2)_n-CO_2R^7$;

R^3 is a group represented by formula (A); and

R^4 is hydrogen, a group represented by formula (A), or lower alkyl. [;]

15. (Amended) The compound of Claim 14, wherein

X is chloro or bromo;

Y is $-N(R^7)_2$;

R^2 is hydrogen or C_1-C_3 alkyl;

at most three R^6 are other than hydrogen as defined above; and

at most three R^L are other than hydrogen as defined above; and

~~at most 2 Q are nitrogen atoms.~~

16. (Previously Presented) The compound of Claim 15, wherein Y is $-NH_2$.

17. (Amended) The compound of Claim 16, wherein

Q 1
R⁴ is hydrogen;

at most one R^L is other than hydrogen as defined above; and

at most two R⁶ are other than hydrogen as defined above; and

~~at most 1 Q is a nitrogen atom.~~

18. (Previously Presented) The compound of Claim 17, wherein x is O, NR⁷, C=O, CHOH, or C=N-R⁶.

19. (Previously Presented) The compound of Claim 17, wherein x represents a single bond.

20. (Previously Presented) The compound of Claim 1, wherein x is O, NR⁷, C=O, CHOH, or C=N-R⁶.

21. (Previously Presented) The compound of Claim 1, wherein x represents a single bond.

22. (Previously Presented) The compound of Claim 1, wherein each R⁶ is hydrogen.

23. (Previously Presented) The compound of Claim 1, wherein at most two R⁶ are other than hydrogen as defined in Claim 1.

24. (Previously Presented) The compound of Claim 1, wherein one R⁶ is other than hydrogen as defined in Claim 1.

Q1

25. (Previously Presented) The compound of Claim 1, wherein one R⁶ is -OH.

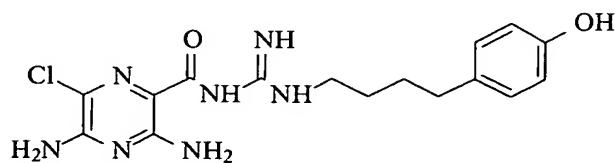
26. (Previously Presented) The compound of Claim 1, wherein each R^L is hydrogen.

27. (Previously Presented) The compound of Claim 1, wherein at most two R^L are other than hydrogen as defined in Claim 1.

28. (Previously Presented) The compound of Claim 1, wherein one R^L is other than hydrogen as defined in Claim 1.

29. (Previously Presented) The compound of Claim 1, wherein x represents a single bond and the sum of o and p is 4 to 6.

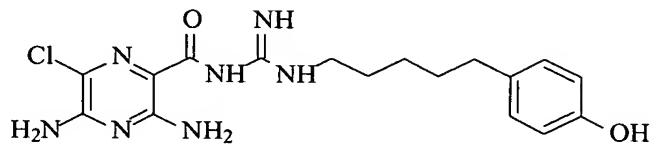
30. (Previously Presented) The compound of Claim 1, which is represented by the formula



31. (Previously Presented) The compound of Claim 30, which is in the form of a pharmaceutically acceptable salt.

32. (Previously Presented) The compound of Claim 31, which is in the form of a hydrochloride salt.

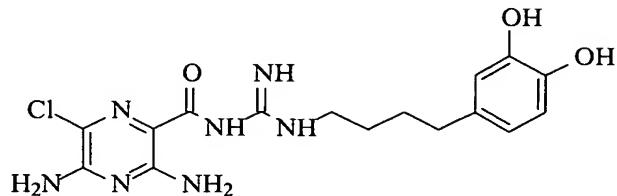
33. (Previously Presented) The compound of Claim 1, which is represented by the formula



34. (Previously Presented) The compound of Claim 33, which is in the form of a pharmaceutically acceptable salt.

35. (Previously Presented) The compound of Claim 34, which is in the form of a hydrochloride salt.

36. (Previously Presented) The compound of Claim 1, which is represented by the formula



37. (Previously Presented) The compound of Claim 36, which is in the form of a pharmaceutically acceptable salt.

38. (Previously Presented) The compound of Claim 37, which is in the form of a hydrochloride salt.

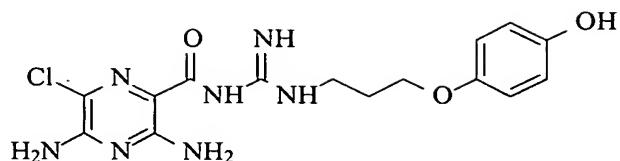
39. Canceled.

40. Canceled.

41. Canceled.

42. (Previously Presented) The compound of Claim 1, which is represented by the formula

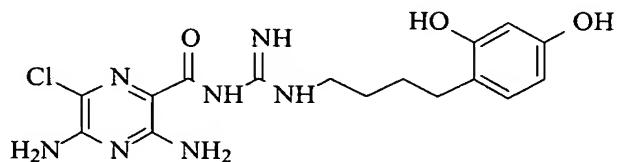
a /



43. (Previously Presented) The compound of Claim 42, which is in the form of a pharmaceutically acceptable salt.

44. (Previously Presented) The compound of Claim 43, which is in the form of a hydrochloride salt.

45. (Previously Presented) The compound of Claim 1, which is represented by the formula



46. (Previously Presented) The compound of Claim 45, which is in the form of a pharmaceutically acceptable salt.

47. (Previously Presented) The compound of Claim 46, which is in the form of a hydrochloride salt.

a1

48. (Previously Presented) The compound of Claim 1, which is in the form of a pharmaceutically acceptable salt.

49. (Previously Presented) A pharmaceutical composition, comprising the compound of Claim 1 and a pharmaceutically acceptable carrier.

50. (Previously Presented) A method of promoting hydration of mucosal surfaces, comprising:

administering an effective amount of the compound of Claim 1 to a mucosal surface of a subject.

51. (Previously Presented) A method of restoring mucosal defense, comprising: topically administering an effective amount of the compound of Claim 1 to a mucosal surface of a subject in need thereof.

52. (Previously Presented) A method of blocking sodium channels, comprising: contacting sodium channels with an effective amount of the compound of Claim 1.

53. (Previously Presented) A method of treating chronic bronchitis, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

a'

54. (Previously Presented) A method of treating cystic fibrosis, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need thereof.

55. (Previously Presented) A method of treating sinusitis, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need thereof.

56. (Previously Presented) A method of treating vaginal dryness, comprising:
administering an effective amount of the compound of Claim 1 to the vaginal tract of a subject in need thereof.

57. (Previously Presented) A method of treating dry eye, comprising:
administering an effective amount of the compound of Claim 1 to the eye of a subject in need thereof.

58. (Previously Presented) A method of promoting ocular hydration, comprising:
administering an effective amount of the compound of Claim 1 to the eye of a subject.

59. (Previously Presented) A method of promoting corneal hydration, comprising:
administering an effective amount of the compound of Claim 1 to the eye of a subject.

a'

60. (Previously Presented) A method of promoting mucus clearance in mucosal
surfaces, comprising:

administering an effective amount of the compound of Claim 1 to a mucosal surface
of a subject.

61. (Previously Presented) A method of treating Sjogren's disease, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

62. (Previously Presented) A method of treating distal intestinal obstruction
syndrome, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

63. (Previously Presented) A method of treating dry skin, comprising:
administering an effective amount of the compound of Claim 1 to the skin of a subject
in need thereof.

64. (Previously Presented) A method of treating esophagitis, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

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65. (Previously Presented) A method of treating dry mouth (xerostomia), comprising:

administering an effective amount of the compound of Claim 1 to the mouth of a subject in need thereof.

66. (Previously Presented) A method of treating nasal dehydration, comprising: administering an effective amount of the compound of Claim 1 to the nasal passages of a subject in need thereof.

67. (Previously Presented) The method of Claim 66, wherein the nasal dehydration is brought on by administering dry oxygen to the subject.

68. (Previously Presented) A method of preventing ventilator-induced pneumonia , comprising:

administering an effective amount of the compound of Claim 1 to a subject on a ventilator.

69. (Previously Presented) A method of treating asthma, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

a'

70. (Previously Presented) A method of treating primary ciliary dyskinesia, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

71. (Previously Presented) A method of treating otitis media, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

72. (Previously Presented) A method of inducing sputum for diagnostic purposes, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

73. (Previously Presented) A method of treating chronic obstructive pulmonary disease, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need thereof.

74. (Previously Presented) A method of treating emphysema, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

75. (Previously Presented) A method of treating pneumonia, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

76. (Previously Presented) A method of treating constipation, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

77. (Previously Presented) The method of Claim 76, wherein the compound is
administered orally or via a suppository or enema.

78. (Previously Presented) A method of treating chronic diverticulitis, comprising:
administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

79. (Amended) ~~A The present invention also provides a method of treating~~
rhinosinusitis, comprising:

administering an effective amount of the compound of Claim 1 to a subject in need
thereof.

80. (Previously Presented) A composition, comprising:
the compound of Claim 1; and
a P2Y2 inhibitor.

81. (Previously Presented) A composition, comprising:
the compound of Claim 1; and
a bronchodilator.
